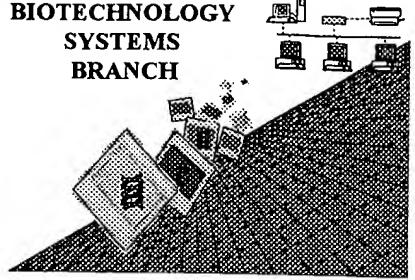


RAW SEQUENCE LISTING

ERROR REPORT

0110
BIOTECHNOLOGY
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Application Serial Number:

08/489,002 08/487,032

Art Unit / Team No.:

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INPUT SET: S23123.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

1

SEQUENCE LISTING

2

3 (1) General Information:

4

5 (i) APPLICANT: DOUGLAS SMITH et al

6

7 (ii) TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES
8 RELATING TO HELICOBACTER PYLO
9 DIAGNOSTICS AND THERAPEUTICS

10

11 (iii) NUMBER OF SEQUENCES: 10031

12

13 (iv) COMPUTER READABLE FORM:

14 (A) MEDIUM TYPE: CD-ROM ISO9660

15 (B) COMPUTER: *mandatory response*16 (C) OPERATING SYSTEM: *mandatory response*17 (D) SOFTWARE: *mandatory response**Does Not Comply
Corrected Diskette Needed**month - DON'T use TAB's -**They cause
misalignment**(all text must be
visible on page)*

18

19 (vi) CURRENT APPLICATION DATA:

20 (A) APPLICATION NUMBER

21 (B) FILING DATE:

22

23 (vii) PRIOR APPLICATION DATA:

24 (A) APPLICATION NUMBER:

25 (B) FILING DATE:

26

27 (viii) PRIOR APPLICATION DATA:

28 (A) APPLICATION NUMBER:

29 (B) FILING DATE:

30

31 (ix) PRIOR APPLICATION DATA:

32 (A) APPLICATION NUMBER:

33 (B) FILING DATE:

34

35 (i) CORRESPONDENCE ADDRESS:

36 (A) ADDRESSEE: LAHIVE & COCKFIELD

37 (B) STREET: 28 State Street

38 (C) CITY: Boston

39 (D) STATE: Massachusetts

40 (E) COUNTRY: USA

41 (F) ZIP: 02109-1875

*(headings and
descriptive responses)**This section
belongs above**(v) COMPUTER READABLE FORM:
section*

43 (viii) ATTORNEY/AGENT INFORMATION:

44 (A) NAME: Mandragouras, Amy E.

45 (B) REGISTRATION NUMBER: 36,207

46 (C) REFERENCE/DOCKET NUMBER: GTN-018

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/993,002DATE: 01/31/98
TIME: 13:03:37

INPUT SET: S23123.raw

47
48 (iX) TELECOMMUNICATION INFORMATION:
49 (A) TELEPHONE: (617)227-7400
50 (B) TELEFAX: (617)742-4214
51
52 (2) INFORMATION FOR SEQ ID NO:1:
53
54 (i) SEQUENCE CHARACTERISTICS:
55 (A) LENGTH: 789 base pairs
56 (B) TYPE: nucleic acid
57 (C) STRANDEDNESS: double
58 (D) TOPOLOGY: circular
59
60 (ii) MOLECULE TYPE: DNA (genomic)
61
62 (iii) HYPOTHETICAL: NO
63
64 (iv) ANTI-SENSE: NO
65
66 (vi) ORIGINAL SOURCE:
67 (A) ORGANISM: Helicobacter pylori
68
69 (ix) FEATURE:
70 (A) NAME/KEY: misc_feature
71 (B) LOCATION: 1...789
72
73 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
74
75 ATGCTCCGCT CTCTCTATAG TGCCACTTCA GGGATGCTCG CCCAACAAAC GCACATTGAC 60
76 ACCACTTCAA ACAACATCGC CAATGTCAAT ACCACCGGGT TTAAAAAAATC TCGCGCGGAT 120
77 TTTAACGACT TGTTTTACCA AGCGATGCAA TACGCCGGCA CCAACACAAG CAACACGACT 180
78 TTATCGCCAG ATGGCATGGA AGTGGGCTTA GCGTACGCC CTAGTGCAT TACCAAAATG 240
79 TTTTCGCAAG GCAGCCCTAA AGAAACGGAG AATAATTAG ATATTGCTAT TACAGGTAAA 300
80 GGCTTTTTC AAGTCCAGCT TCCTGTATGGC ACTACCGCTT ACACAAGGAG CGGGAATTTC 360
81 AAGCTAGACG AGCAGGGCAA TCTTGTAAAC ACGGAGGGCT ATCTCCCTCAT CCCTCAAATC 420
82 ACTTTACCCG AAGACACCAAC GCAAGTGAAT ATCGGTGTGG ATGGCACGGT GAGCGTGACT 480
83 CAAGGCTTGC AAACGACTTC TAACGTGATC GGGCAAATCA CTTGGCTAA TTTTGTCAAT 540
84 CCGGGGGGGC TTCATTCTAT GGGGGATAAT TTGTTTTCCA TCACCAACGC TAGCGCGAT 600
85 GCGATTGTGG GCAACCCGGA TTCTCAAGGC TTAGGCAAGT TAAGGCAAGG CTTTTTGGAG 660
86 CTTAGTAACG TGAGATTGGT AGAAGAAATG ACAGATCTAA TCACCGCTCA AAGGGCTTAT 720
87 GAAGCCAATT CTAAAAGCAT TCAAACCGCT GATGCCATGC TCCAAACAGT CAATTCCCTC 780
88 AAACGCTAA 789
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90 (2) INFORMATION FOR SEQ ID NO:2:
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92 (i) SEQUENCE CHARACTERISTICS:
93 (A) LENGTH: 816 base pairs
94 (B) TYPE: nucleic acid
95 (C) STRANDEDNESS: double
96 (D) TOPOLOGY: circular
97
98 (ii) MOLECULE TYPE: DNA (genomic)
99

RAW SEQUENCE LISTING
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100 (iii) HYPOTHETICAL: NO
101
102 (iv) ANTI-SENSE: NO
103
104 (vi) ORIGINAL SOURCE:
105 (A) ORGANISM: Helicobacter pylori
106
107 (ix) FEATURE:
108 (A) NAME/KEY: misc_feature
109 (B) LOCATION: 1...816
110
111 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
112
113 TTGTTAAGTT TAGTTAAAGG GAAAACCAGT CTCCGCTCTC TCTATAGTGC CACTTCAGGG 60
114 ATGCTCGCCC AACAAACGCA CATTGACACC ACTTCAAACA ACATCGCCAA TGTCAATAACC 120
115 ACCGGGTTTA AAAATCTCG CGCGGATTTT AACGACTTGT TTTACCAAGC GATGCAATAAC 180
116 GCGGCACCA ACACAAGCAA CACGACTTTA TCGCCAGATG GCATGGAAGT GGGCCTTGGC 240
117 GTACCCCTA GTGCGATTAC CAAAATGTTT TCGCAAGGCA GCCCTAAAGA AACGGAGAAT 300
118 AATTTAGATA TTGCTATTAC AGGTAAAGGC TTTTTCAAG TCCAGCTTCC TGATGGCACT 360
119 ACCGCTTACA CAAGGAGCGG GAATTCAAG CTAGACGAGC AGGGCAATCT TGTAACAAGC 420
120 GAGGGCTATC TCCTCATCCC TCAAATCACT TTACCCGAAG ACACCCACGCA AGTGAATATC 480
121 GGTGTGGATG GCACGGTGAG CGTGACTCAA GGCTTGCAAA CGACTTCTAA CGTGATCGGG 540
122 CAAATCACTT TGGCTAATTG TGTCAATCCG GCGGGGCTTC ATTCTATGGG GGATAATTG 600
123 TTTCCATCA CCAACGCTAG CGGCGATGCG ATTGTGGGCA ACCCGGATTC TCAAGGCTTA 660
124 GGCAAGTTAA GGCAAGGCTT TTTGGAGCTT AGTAACGTGA GATTGGTAGA AGAAATGACA 720
125 GATCTAATCA CCGCTCAAAG GGCTTATGAA GCCAATTCTA AAAGCATTCA AACCGCTGAT 780
126 GCCATGCTCC AAACAGTCAA TTCCCTCAA CGCTAA 816
127
128 (2) INFORMATION FOR SEQ ID NO:3:
129
130 (i) SEQUENCE CHARACTERISTICS:
131 (A) LENGTH: 837 base pairs
132 (B) TYPE: nucleic acid
133 (C) STRANDEDNESS: double
134 (D) TOPOLOGY: circular
135
136 (ii) MOLECULE TYPE: DNA (genomic)
137
138 (iii) HYPOTHETICAL: NO
139
140 (iv) ANTI-SENSE: NO
141
142 (vi) ORIGINAL SOURCE:
143 (A) ORGANISM: Helicobacter pylori
144
145 (ix) FEATURE:
146 (A) NAME/KEY: misc_feature
147 (B) LOCATION: 1...837
148
149 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:
150
151 TCTTATTTT GTTATAATCT TAGGTTGTTA AGTTTAGTTA AAGGGAAAAC CATGCTCCGC 60
152 TCTCTCTATA GTGCCACTTC AGGGATGCTC GCCCAACAAA CGCACATTGA CACCACATTCA 120

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PATENT APPLICATION US/08/993,002DATE: 01/31/98
TIME: 13:03:43

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154	TTGTTTACCAAGCGATGCA ATACGCCGGC ACCAACACAA GCAACACGAC	TTTATCGCCA	240
155	GATGGCATGG AAGTGGGCCT TGGCGTACGC CCTAGTGCAGA	TTACCAAAAT GTTTTCGCAA	300
156	GGCAGCCCTAAAGAACCGGA GAATAATTAA GATATTGCTA TTACAGGTAAGGCTTTTT	360	
157	CAAGTCCAGCTTCCTGATGG CACTACCGCT TACACAAGGA GCGGGAAATTCAAGCTAGAC	420	
158	GAGCAGGGCA ATCTTGTAAC AAGCGAGGGC TATCTCCTCA TCCCTCAAAT CACTTTACCC	480	
159	GAAGACACCA CGCAAGTGAA TATCGGTGTG GATGGCACGG TGAGCGTGAC	TCAAGGCTTG	540
160	CAAACGACTT CTAACGTGAT CGGGCAAATC ACTTTGGCTA ATTTTGTCAA TCCGGCGGG	600	
161	CTTCATTCTA TGGGGGATAA TTTGTTTCC ATCACCAACG CTAGCGCGA TGCGATTGTG	660	
162	GGCAACCCGG ATTCTCAAGG CTTAGGCAAG TTAAGGCAAG GCTTTTGGA GCTTAGTAAC	720	
163	GTGAGATTGG TAGAAGAAAT GACAGATCTA ATCACCGCTC AAAGGGCTTA TGAAGCCAAT	780	
164	TCTAAAAGCA TTCAACCCGC TGATGCCATG CTCCAAACAG TCAATTCCCT CAAACGC	837	

165

166 (2) INFORMATION FOR SEQ ID NO:4:

167

168 (i) SEQUENCE CHARACTERISTICS:

169	(A) LENGTH: 315 base pairs
170	(B) TYPE: nucleic acid
171	(C) STRANDEDNESS: double
172	(D) TOPOLOGY: circular

173

174 (ii) MOLECULE TYPE: DNA (genomic)

175

176 (iii) HYPOTHETICAL: NO

177

178 (iv) ANTI-SENSE: NO

179

180 (vi) ORIGINAL SOURCE:

181 (A) ORGANISM: Helicobacter pylori

182

183 (ix) FEATURE:

184	(A) NAME/KEY: misc_feature
185	(B) LOCATION: 1...315

186

187 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

188

189	TTAAGGGAAA GCATGTTTT ATCTTCTTT GATATTAGCG GTTATGGTT GTCCGCCAA	60
190	CGCTTAAGGG CTAATTGAT TTCTTCTAAT ATCGCTAACG CTAACACCAAC GCGCACGAGC	120
191	GAAGGAGGTC CTTATAGGAG ACAAGAAGCG GTGTTAGGG CTTTGATTT CAATGAGATT	180
192	TTAAACCAAA AAATGCCCA AAACAATCAA ATCATCCCCT ATGAAGACCC TTTAGATGAA	240
193	GGCGATGACA ACCCCTTAAT CCCCATTACA AGCGTGGTGG TGGATAAGAT TGCGCGCGAT	300
194	GATAGTGATC CGTTG	315

195

196 (2) INFORMATION FOR SEQ ID NO:5:

197

198 (i) SEQUENCE CHARACTERISTICS:

199	(A) LENGTH: 486 base pairs
200	(B) TYPE: nucleic acid
201	(C) STRANDEDNESS: double
202	(D) TOPOLOGY: circular

203

204 (ii) MOLECULE TYPE: DNA (genomic)

205

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/993,002DATE: 01/31/98
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INPUT SET: S23123.raw

206 (iii) HYPOTHETICAL: NO
 207 (iv) ANTI-SENSE: NO
 208 (vi) ORIGINAL SOURCE:
 209 (A) ORGANISM: *Helicobacter pylori*
 210 (ix) FEATURE:
 211 (A) NAME/KEY: misc_feature
 212 (B) LOCATION: 1...486
 213 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:
 214
 215
 216
 217
 218
 219 ATGTTTTAT CTTCTTTGA TATTAGCGGT TATGGTTGT CCGCCCAACG CTTAAGGGCT 60
 220 AATTGATTT CTTCTAATAT CGCTAACGCT AACACCCACGC GCACGAGCGA AGGAGGTCCT 120
 221 TATAGGAGAC AAGAAGCGGT GTTGTAGGGCT TTTGATTCA ATGAGATTT AAACCAAAAA 180
 222 ATCGCCAAA ACAATCAAAT CATCCCCTAT GAAGACCCCTT TAGATGAAGG CGATGACAAC 240
 223 CCCTTAATCC CCATTACAAG CGTGGTGGTG GATAAGATTG CGCGCGATGA TAGTGAGCCG 300
 224 TTGATGAAAT ACGATCCAG CCACCCCTGAC GCTAACGCTC AAGGCTATGT GGCTTACCCC 360
 225 AATGTGAATG CGGTGGTTGA AATGGCGGAC TTAGTGAAG CGACTAGAGC TTATCAGGCT 420
 226 AATGTTGCAG CCTTCAAAG CGCTAAAAAC ATGGCGAAA ATGCGATTGG CATGTTACAA 480
 227 ACATGA 486
 228
 229 (2) INFORMATION FOR SEQ ID NO:6:
 230
 231 (i) SEQUENCE CHARACTERISTICS:
 232 (A) LENGTH: 330 base pairs
 233 (B) TYPE: nucleic acid
 234 (C) STRANDEDNESS: double
 235 (D) TOPOLOGY: circular
 236
 237 (ii) MOLECULE TYPE: DNA (genomic)
 238
 239 (iii) HYPOTHETICAL: NO
 240
 241 (iv) ANTI-SENSE: NO
 242
 243 (vi) ORIGINAL SOURCE:
 244 (A) ORGANISM: *Helicobacter pylori*
 245
 246 (ix) FEATURE:
 247 (A) NAME/KEY: misc_feature
 248 (B) LOCATION: 1...330
 249
 250 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:
 251
 252 ATGCAAGCCA TACACAATGA TAAAAGCTTA TTGAGTCCTT TCTCTGAGCT TAACACGGAC 60
 253 AACAGGACTA AAAGAGGAGA ATCGGGTAGC ACCTTTAAAG AACAAAAAGG TGGGGAGTTT 120
 254 TCTAAACTCT TGAAACAATC TATCAACGAG CTTAACAAACA CTCAGAGCA GTCTGATAAA 180
 255 GCCTTAGCCG ACATGGCGAC AGGGCAGATC AAGGACTTGC ACCAAGCGGC TATCGCCATA 240
 256 GGGAAAGGCTG AAACGAGCAT GAAACTCATG CTTGAAGTGC GTAACAAAGC GATCAGTGCT 300
 257 TATAAAGAGC TTTAAGAAC GCAGATCTAA 330
 258

PAGE: 1

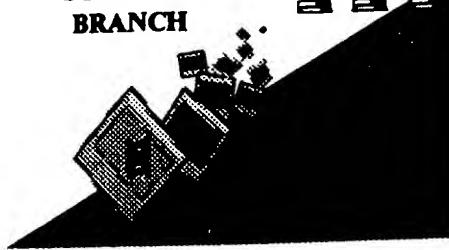
SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/08/993,002

DATE: 01/31/98
TIME: 13:03:50

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Line	Error	Original Text
15	Mandatory Value Not Present	(B) COMPUTER:
16	Mandatory Value Not Present	(C) OPERATING SYSTEM:
17	Mandatory Value Not Present	(D) SOFTWARE:

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- 1) Dial-up access through the Internet. Location is <ftp://ftp.uspto.gov>
The software is in current directory: pub/checker/
Download all the files. Cost: Free-of-charge
- 3) For diskette copies, mail to: U.S.P.T.O., OEIP, CRYSTAL PARK 3, SUITE 441
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